COMBINATION OF SLUDGES FROM ALL IMPOUNDMENTS TO DETERMINE WASTE VOLUME FOR VHS ANALYSIS

APR 13, 1987

Richard Davis
RCRA Coordinator
Brush Wellman Inc.
South River Road
Elmore, Ohio 43416

Dear Mr. Davis:

In your letter of March 23, 1987, you indicated your concerns over our decision to deny the delisting petition (#0573) that Brush Wellman has had on file with the Agency since October 26, 1984. In our denial letter of December 5, 1985, the lagoon sludges (EPA Hazardous Waster No. F006) accumulating at your Elmore, Ohio facility were deemed to be hazardous. This determination was based largely on the evaluation of the wastes with a ground water model (the vertical and horizontal spread [VHS] model), which predicted that these sludges, when land disposed, would tend to leach lead into ground water, producing contamination levels above our levels of regulatory concern. This letter summarizes our responses to your concerns about the denial decision, as were addressed in a meeting with Ken Shuster, Myles Morse, and Scott Maid, on November 17, 1986.

Your primary contention was that each impoundment should be analyzed as a separate entity, and should not be combined with the other impoundments in the VHS analyses. Combination of impounded sludges to determine a maximum waste volume has been performed routinely in delisting decisions; examples of previously published decisions which have combined volumes of impounded wastes for VHS analysis are given below. These listed facilities have either been granted final exclusions or have been proposed by the Agency to be granted final exclusions for their wastes.

Petitioner	Citation	Impoundments

Wateryliet Arsenal 51 FR 1253 (1/10/86) 2 drying beds
Bommer Industries 50 FR 48930 (11/27/85) 2 ponds
General Electric 50 FR 48949 (11/27/85) 4 ponds

The rationale behind the combining of your impounded wastes is that these wastes are the same (F006) waste that have been subject to a common treatment regime, contain common constituents, may possibly be disposed together, and in fact have been impacting the underlying aquifer as a single unit. The consideration of the combined wastes in the VHS evaluation would, therefore, be a reasonable worst case. We cannot restrict the disposal of the waste after it has been delisted. Our position has been that if management restrictions must be placed on a petitioned waste to ensure the proper treatment of the waste, then the waste should be considered hazardous. Consequently, the analysis of a waste for delisting must necessarily take into account all viable management practices, including simultaneous disposal of the wastes. Because of the small amount of F006 sludges accumulating in these three lagoons (less than 300 tons total), our model calculations used the maximum dilution rate of 32-fold dilution in the aquifer. No greater dilution would occur, therefore, if each lagoon was considered separately.

Our findings, as stated in the December 5, 1985 letter indicated that lead may leach from the waste and cause ground water contamination. Although lead is not a listed constituent of F006, the Hazardous and Solid Waste Amendments of 1984 (HSWA) require the agency to consider additional factors (other than those for which the waste was originally listed) to determine the hazardous nature of a waste. The presence of leachable lead in the impounded waste has been determined to be a significant problem, in spite of your contention that the lead may have entered the waste stream from a non-listed source. More recent evaluations of the data have indicated that beryllium, another Appendix VIII constituent, is also capable of leaching from the waste at levels which fail the VHS evaluation. The impounded wastes are defined as F006 sludges because a portion of these sludges were derived from the treatment, storage, and disposal of a listed hazardous waste. See 40 CFR _261.3(a)(2)(iv), which states that such a combination of solid wastes and listed hazardous wastes is defined as hazardous.

You have mentioned previously that ground water monitoring data for the Elmore facility shows that no hazardous constituents are migrating from the surface impoundments, and that this site-specific data should be used in the evaluation instead of the compliance-point concentrations predicted by the VHS model.

Ground water data is used in the course of petition evaluation, because it is an indicator of past management practices at a site. Ground water data which indicates contamination from on-site waste management may be used a basis for petition denial. Ground water monitoring does not, however, offer a means by which we can evaluate potential future impacts of a

disposed waste upon ground water, since such data represents only a "snapshot" in time. Ground water data, therefore, is useful for evaluation of past management practice but cannot be used as a predictive tool such as the VHS model.

You requested a delisting decision for the nickel plating rinse waters and electrocleaning/bright dip rinse waters prior to the commingling with numerous non-listed waste streams in the lagoon system. These two wastewaters are not eligible for delisting. These wastewaters are not disposed wastes, but are subsequently treated in the lagoons, where wastewater treatment sludges accumulate. Because the accumulated sludges are listed (F006) wastes, it is inappropriate to delist the wastewaters prior to treatment in the lagoons. We would like to note that even if the nickel plating rinse waters were to be examined as the waste of concern, using your maximum generation rate of 36,000 gallons per month and the average cadmium concentration in this wastewater (from the petition), the VHS model indicates the compliance-point concentration for cadmium in the ground water would be 0.016 ppm, which exceeds our regulatory standard of 0.01 ppm.

Finally, meeting the BAT guidelines for rinsewaters under the Clean Water Act has no bearing on the regulation of sludges generated from the treatment of these wastewaters under the Resource Conservation and Recovery Act (RCRA), as amended. The sludges generated from the bright dip and plating rinsewaters are regulated as EPA Hazardous Waste No. F006 under RCRA.

We re-affirm our earlier decision to deny the petition for the impounded F006 wastes at the Elmore, Ohio facility. We anticipate that a denial notice will be published in the Federal Regiser in the near future. If you have any additional questions or concerns, please direct them to Scott Maid at (202) 382-4783.

Sincerely yours,

Original Document signed

Suzanne Rudzinski
Branch Chief
Assistance Branch

cc: file
Al Debus, Reg. V
William Muno, Reg. V

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